

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

**REVISED NOTICE OF PROPOSED AWARD (NOPA)****Production Scale-Up for Clean Energy Technologies
GFO-18-302****May 3, 2019**

On January 11, 2019, the California Energy Commission released a competitive solicitation titled “Production Scale-Up for Clean Energy Technologies” (GFO-18-302). The solicitation sought to provide financial assistance to help clean energy entrepreneurs successfully advance their emerging best-of-class innovative technology to the Low-Rate Initial Production stage. These projects will allow clean energy companies to transition their technology innovations from highly customized hand-built prototypes, which are used for performance testing and vetting the production process, to the final mass-produced end product.

Originally, \$12 million in Electric Program Investment Charge funding was available for the agreements resulting from this solicitation, in:

- Group 1: Energy Efficiency
- Group 2: Renewable Generation
- Group 3: Energy Storage

As the Energy Commission reserves the right to change the available funding and the group minimum/maximum award amounts, the Energy Commission is adding funding for this solicitation. In this revised NOPA, the total funding amount for this solicitation is revised to \$22,392,201, as described below.

The Energy Commission received 31 applications across the three groups by the due date of March 8, 2019. Each application was screened, reviewed, evaluated, and scored using the criteria in the solicitation. All 31 applications passed the Stage One Application Screening.

The first NOPA was released on April 8, 2019 and covered results for Group 3:

- Total funding was \$11,149,251 for Group 3. Five applications were recommended for funding.

This amendment covers the results for Groups 1 and 2:

- Total funding is updated to \$11,242,950, of which \$5,893,017 is for Group 1 and \$5,349,933 for Group 2. Five applications are recommended for funding.

The attached Revised NOPA identifies Group 1, Group 2, and Group 3 applicants recommended for funding and includes the recommended funding amount and score.

Funding of the proposed projects resulting from this solicitation is contingent upon their approval at a publicly noticed Energy Commission business meeting and execution of grant agreements. If the Commission is unable to timely execute a funding agreement with an applicant, the Commission, at its sole discretion, reserves the right to cancel or otherwise modify the pending award, and award the funds to another applicant.

In addition, the Energy Commission reserves the right to: 1) increase, reduce, or shift funding among the groups to make additional awards; and 2) negotiate with successful applicants to modify the project scope, schedule, or level of funding.

This notice is being mailed to all parties who submitted an application and is also posted on the Energy Commission's website at www.energy.ca.gov/contracts/.

For information, please contact Crystal Presley-Willis at (916) 653-6110 or Crystal.Presley-Willis@energy.ca.gov.

Crystal Presley-Willis
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Group 1: Energy Efficiency							
Group Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Proposed Award							
1	General Engineering & Research	Scale-up of Magnetocaloric Materials for High Efficiency Magnetic Refrigeration	\$1,088,188	\$1,088,188	\$306,791	84.78	Awardee
2	Glint Photonics, Inc.	Production Scale-Up of High Efficiency Adjustable Lighting Products	\$1,998,922	\$1,998,922	\$399,831	82.22	Awardee
3	Treau, Inc.	Scale-Up Production of Low-GWP, High-Efficiency Heat Pump and Air Conditioner	\$2,805,907	\$2,805,907	\$1,901,907	80.08	Awardee
Total Funding Recommended			\$5,893,017	\$5,893,017	\$2,608,529		
Group Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Did Not Pass							
	Aquacycl	Scaling and Automating Energy-Efficient Wastewater Treatment Systems	\$1,146,399		\$250,240		Did Not Pass
	CanCoverIt Inc.	CanCoverIt High Efficiency Attic Modular Solution	\$1,508,400		\$320,100		Did Not Pass
	Matrix Industries	Commercial Refrigerated Beverage Cooling for Energy Use & GHG Reduction	\$1,884,167		\$564,792		Did Not Pass
	Micro Nano Technologies	Scalable Production of Heat and Mass Exchangers for a New Generation Ultra-Efficient HVAC System	\$1,292,149		\$259,156		Did Not Pass
	Winston Cone Optics	Towards Mass manufacturing low cost solar collector for non-vapor compression chiller	\$1,311,572		\$267,217		Did Not Pass
Total			\$7,142,687	\$0	\$1,661,505		



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Group 2: Renewable Generation							
Group Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Proposed Award							
1	Halo Industries	Production Scale-Up of Advanced Wafer Technology for Drastic Solar Photovoltaics Cost Reduction	\$4,000,000	\$4,000,000	\$1,250,000	77.89	Awardee
2	Spark Thermionics, Inc.	Production Scale-Up of Thermionic Energy Harvesters	\$1,349,933	\$1,349,933	\$270,000	77.42	Awardee
Total Funding Recommended			\$5,349,933	\$5,349,933	\$1,520,000		
Group Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Did Not Pass							
	Advanced Mechanical Systems	Scale up Prototype Production of High-Density Piezoelectric Energy Harvesting System from Highway Traffic	\$4,000,000		\$800,000		Did Not Pass
	Hi-Z Technology	Market Facilitation of a 1kW Thermoelectric Generator	\$2,282,918		\$457,536		Did Not Pass
	Power Shield, Inc.	Energy Efficient Solar Roof Tile	\$1,034,286		\$221,608		Did Not Pass
	Pyro-E LLC	Scalable Production of Regenerative Pavement Devices	\$3,800,000		\$1,350,000		Did Not Pass
	SafeConnect Solar, Inc.	Halving the Cost of Residential PV in California	\$918,594		\$325,649		Did Not Pass
	Solar Fuel, Inc.	Accelerating the Commercialization of a Solar Panel Power Increasing Device	\$2,542,000		\$507,000		Did Not Pass
	Ubiquitous Energy, Inc.	Productizing ClearView Power: Enabling Production of Transparent Renewable Energy Generating Windows	\$3,978,294		\$4,777,154		Did Not Pass
Total			\$18,556,092	\$0	\$8,438,947		



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Group 3: Energy Storage							
Group Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Proposed Award							
1	Primus Power	Production Scale-Up of Low-Cost, Long-Life Flow Battery	\$4,000,000	\$4,000,000	\$6,319,321	90.25	Awardee
2	South 8 Technologies, Inc.	Production Scale-Up for Next Generation Batteries Using Liquefied Gas Electrolytes	\$1,028,059	\$1,028,059	\$466,416	84.89	Awardee
3	Sepion Technologies, Inc	Scaling Up Pilot Production of Nanoporous Membranes for Market Facilitation of Safe, Low-Cost, and Energy-Dense Batteries	\$2,675,793	\$2,675,793	\$2,489,417	83.71	Awardee
4	Caban Systems	Prototype to Production: Modular Battery Platform Project for California Critical Infrastructure	\$1,878,760	\$1,878,760	\$1,393,500	82.91	Awardee
5	Cuberg, Inc.	Improved Batteries for California's Zero-Emissions Vehicle Future	\$1,566,639	\$1,566,639	\$316,200	75.79	Awardee
Total Funding Recommended			\$11,149,251	\$11,149,251	\$10,984,854		



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Group Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Did Not Pass							
	Andromeda Power, Inc.	Incisive Vehicle-to-Grid-Integration for energy storage in DC (iVGI-DC)	\$1,599,131		\$489,840		Did Not Pass
	Andromeda Power, Inc.	Incisive Vehicle-to-Grid-Integration for energy storage in AC (iVGI-AC)	\$1,695,277		\$489,930		Did Not Pass
	AOST Battery, Inc.	Two Stage Automated Production of an Aluminum Ion Battery	\$3,951,000		\$5,198,123		Did Not Pass
	Zondluz, LLC	Manufacturing Process Improvements to MRL8 for Solar Skylight Collector	\$1,007,000		\$251,683		Did Not Pass
	FreeWire Technologies, Inc.	FreeWire Enhanced Boost Charger Production	\$1,997,228		\$2,574,770		Did Not Pass
	Intertie, Incorporated	Commercializing a novel, scalable storage technology that can be safely located anywhere to cost-effectively maximize the value of storage by providing super-fast EV charging, solar integration and suite of other electric services.	\$1,000,000		\$500,000		Did Not Pass
Total			\$11,249,636	\$0	\$9,504,346		